



Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200  
Fax 613 632-5246

**D5110-1**  
**Job Sheet 186862**



Part No: D5110-1

Job Qty: 8 ea

Part Name: Swivel Nut Fitting



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 11/22/18

Job Tracking No:

Due Date: 12/7/18

Created By: Marie Lajeunesse

Type: SOLD

Description:

Note: DWG REV B IPP REV:A 14.06.18 AS PER DWG REV.A DD VERF:JLM

Ship Via:

### Bill of Materials

### Job Routing

| Op No | Operation              | Qty   | Start Date | Due Date | Standard  |         | Workcenter/Supplier   |           | Sign-off    |
|-------|------------------------|-------|------------|----------|-----------|---------|-----------------------|-----------|-------------|
|       |                        |       |            |          | Setup Hrs | Run Hrs | Workcenter / Supplier | Lead Time |             |
| 100   | Purchasing             | 8 pcs | 12/7/18    | 12/7/18  | 0.00      | 0.00    | Purchasing            |           | DEC 07 2018 |
| 110   | Packaging              | 8 pcs | 12/7/18    | 12/7/18  | 0.00      | 0.00    | Packaging2            |           | DEC 07 2018 |
| 120   | QC                     | 8 pcs | 12/7/18    | 12/7/18  | 0.00      | 0.00    | QC6                   |           |             |
| 121   | CNC Vertical Machining | 8 pcs | 12/7/18    | 12/7/18  | 0.07      | 2.23    | HAAS 5 Axis           |           | 19-02-12    |
| 123   | QC                     | 8 pcs | 12/7/18    | 12/7/18  | 0.00      | 0.00    | QC8                   |           | 19/02/13    |
| 130   | Packaging              | 8 pcs | 12/7/18    | 12/7/18  | 0.00      | 0.00    | Packaging3-2          |           | FEB 13 2019 |
| 140   | QC21-SA                | 8 Ea  | 12/7/18    | 12/7/18  | 0.00      | 0.00    | QC21                  |           | FEB 17 2019 |

Part Op 100 - Issue PO 041814 Wainbee Purchase part #: 12 C6X SS Possible supplier: PARKER HANNIFIN  
Descriptions: Certificate of conformity is required  
110 - Certificate of conformity is required.  
121 - DRILL LOCK WIRE HOLES AS PER DWG AND FOLIO FB490 FOLIO REV: \_\_\_\_\_ DWG REV: \_\_\_\_\_  
DEBURR

### Job BOM

| Part / Item | Component Name     | Quantity     | Operation      | Container |
|-------------|--------------------|--------------|----------------|-----------|
| 12 C6X SS   | Swivel Nut Fitting | 8 pcs (1 ea) | 100-Purchasing | 5135808   |

CTX8

### Job Allocations

| Operation      | Component Part | Required | Inventory | Allocated |
|----------------|----------------|----------|-----------|-----------|
| 100-Purchasing | 12 C6X SS      | 8        | 0         | 0         |

### Part Specifications

| Spec No | Description        | Target/Tolerance               | Limits         | Type     | Special Comments |
|---------|--------------------|--------------------------------|----------------|----------|------------------|
| 1       | Swivel Nut Fitting | 0.280Inches ± 0.030            | 0.310<br>0.250 |          |                  |
| 2       | Swivel Nut Fitting | 0.063Inches + 0.004<br>- 0.001 | 0.067<br>0.062 | Diameter |                  |
| 3       | Swivel Nut Fitting | 0.607Inches ± 0.010            | 0.617<br>0.597 |          |                  |



DQA: \_\_\_\_\_ Date: \_\_\_\_\_

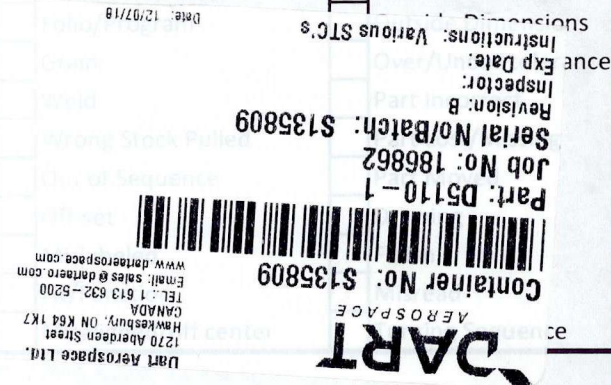
## WORK ORDER NON-CONFORMANCE / UPDATE



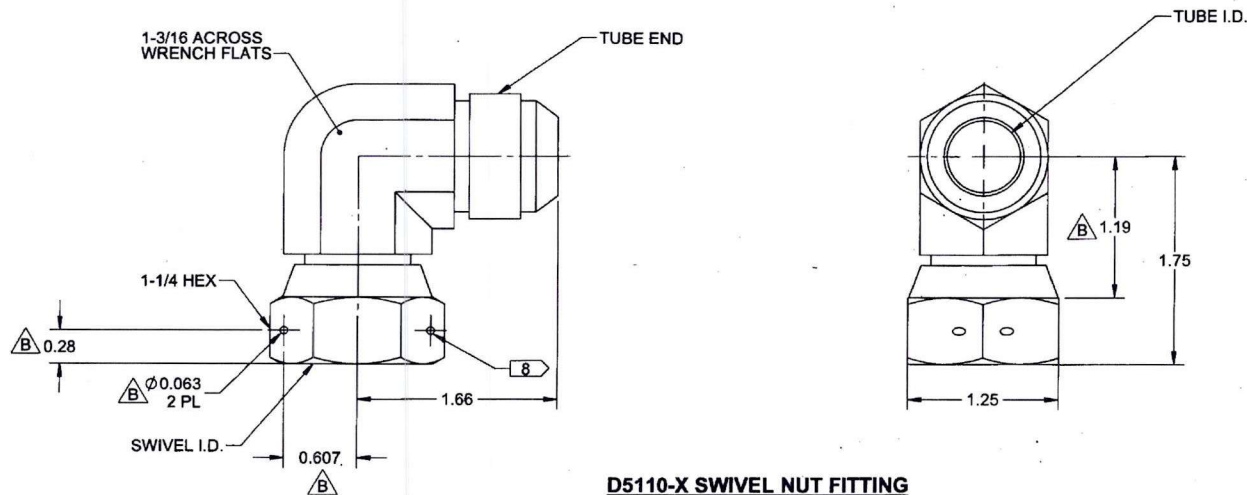
QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only ☐

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                 |                                           |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|-------------------------------------------|--|
| Work Order: _____<br><br>Part No. _____<br><br>NCR No. _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/><br>Suspected Unapproved <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>AGAINST DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>             Skid-tube <input type="checkbox"/><br/>             Machining <input type="checkbox"/><br/>             Thermoforming <input type="checkbox"/><br/>             Large Fab <input type="checkbox"/> </div> <div>             Cross tube <input type="checkbox"/><br/>             Small Fab <input type="checkbox"/><br/>             Finishing <input type="checkbox"/><br/>             Composite <input type="checkbox"/> </div> <div>             Water Jet <input type="checkbox"/><br/>             Prod. Eng. Coord. <input type="checkbox"/><br/>             Rec/Store/Packaging <input type="checkbox"/><br/>             Supplier <input type="checkbox"/> </div> <div>             Engineering <input type="checkbox"/><br/>             Quality <input type="checkbox"/><br/>             Other <input type="checkbox"/> </div> </div> |                                                 |                                           |  |
| Date :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Step #:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | QTY Effective :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                 | MRB (QSI042) Approval                     |  |
| Description Work Order Deviation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Disposition                                     |                                           |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Completed By                                    |                                           |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Lead hand / Supervisor<br>Approval Verification |                                           |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | QC / QA Coordinator<br>Approval                 |                                           |  |
| Root Cause                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | FAULT CATEGORY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                 |                                           |  |
| <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;">             Environment <input type="checkbox"/><br/>             Design <input type="checkbox"/><br/>             Doc/Data <input type="checkbox"/><br/>             Equip/Tooling <input type="checkbox"/><br/>             Handling/Pre <input type="checkbox"/><br/>             Material <input type="checkbox"/><br/>             Internal Transport <input type="checkbox"/><br/>             Tribal Knowledge <input type="checkbox"/><br/>             LOA <input type="checkbox"/><br/>             Substation <input type="checkbox"/><br/>             Past Expiry Date <input type="checkbox"/><br/>             Misidentified <input type="checkbox"/> </div> <div style="width: 50%;">             No Re-verification <input type="checkbox"/><br/>             Operator <input type="checkbox"/><br/>             Offset/Setup <input type="checkbox"/><br/>             Supplier <input type="checkbox"/><br/>             Training <input type="checkbox"/><br/>             Use for Testing <input type="checkbox"/><br/>             Poor Information <input type="checkbox"/><br/>             Rushing <input type="checkbox"/><br/>             Product Improvement <input type="checkbox"/><br/>             Process Improvement <input type="checkbox"/><br/>             Manufacturing Process <input type="checkbox"/><br/>             Past Due <input type="checkbox"/> </div> </div> | <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;">             Pressure/Forced <input type="checkbox"/><br/>             Bending <input type="checkbox"/><br/>             Centre Not Concentric <input type="checkbox"/><br/>             Cracks <input type="checkbox"/><br/>             Crimp/Kink/Ripple/Wave <input type="checkbox"/><br/>             Cuffs <input type="checkbox"/><br/>             Crushing <input type="checkbox"/><br/>             Heat Treat <input type="checkbox"/><br/>             Wave/Twist in Tube <input type="checkbox"/><br/>             Marks/Chatter <input type="checkbox"/> </div> <div style="width: 50%;">             Temperature/Cure <input type="checkbox"/><br/>             Set-up <input type="checkbox"/><br/>             BOM/Route <input type="checkbox"/><br/>             Broken/Damage/Defect <input type="checkbox"/><br/>             Inspection Incomplete <input type="checkbox"/><br/>             Contamination <input type="checkbox"/><br/>             Countersink <input type="checkbox"/><br/>             Cut Too Short <input type="checkbox"/><br/>             Instructions Incomplete <input type="checkbox"/><br/>             Drill Holes <input type="checkbox"/> </div> </div> | <input type="checkbox"/> Power Loss/Surge                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                 | <input type="checkbox"/> Positioned Wrong |  |
| OTHER : <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                 |                                           |  |



# **SPECIFICATION CONTROL DRAWING**



SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 186862 MWS  
18-11-22

**D5110-X SWIVEL NUT FITTING**

| DART PART NUMBER | VENDOR PART NUMBER | TUBE END           | TUBE ID | SWIVEL END         | SWIVEL ID | MATERIAL | POSSIBLE SUPPLIER | WEIGHT   |
|------------------|--------------------|--------------------|---------|--------------------|-----------|----------|-------------------|----------|
| D5110-1          | 12 C6X SS          | 1-1/16 - 12 UNF-2A | 0.610   | 1-1/16 - 12 UNF-2A | 0.610     | 316 SS   | PARKER HANNIFIN   | 1.90 LBS |

- NOTES:
- 1) SUPPLIER: SEE TABLE
  - 2) MATERIAL: SEE TABLE
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: N/A
  - 6) IDENTIFICATION: PER QSI 044 6.1
  - 7) WEIGHT: PER TABLE
  - 8) LOCKWIRE HOLES TO BE ADDED BY PRODUCTION

RELEASED  
2016-08-04  
ECN 16-672

APPROVED

|            |                      |                                                                                                                                                                                                                                                                          |              |
|------------|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| B          | ADDED LOCKWIRE HOLES | CC                                                                                                                                                                                                                                                                       | 16.06.20     |
| A          | NEW ISSUE            | DB                                                                                                                                                                                                                                                                       | 14.04.24     |
| REV.       | DESCRIPTION          | BY                                                                                                                                                                                                                                                                       | DATE         |
| DESIGN     | DB                   | DART AEROSPACE LTD<br>HAWKESBURY, ONTARIO, CANADA                                                                                                                                                                                                                        |              |
| DRAWN      | CC                   |                                                                                                                                                                                                                                                                          |              |
| CHECKED    | AK                   | DRAWING NO.                                                                                                                                                                                                                                                              | REV. B       |
| MFG. APPR. | JLM                  | D5110                                                                                                                                                                                                                                                                    | SHEET 1 OF 1 |
| APPROVED   | HS                   | TITLE                                                                                                                                                                                                                                                                    | SCALE        |
| DE APPR.   | DS                   | SWIVEL NUT FITTING                                                                                                                                                                                                                                                       | NTS          |
| DATE       | 16.06.20             | COPYRIGHT © 2014 BY DART AEROSPACE LTD<br>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD. |              |





Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200

# **PURCHASE ORDER** **PO041814**

**Supplier:** WAI001-VC  
Wainbee Ltee  
215 Boul. Brunswick  
Pointe-Claire  
QC  
H9R 4R7 Canada  
Phone: 514 697 8810  
Fax: 514 697 3070

**PO No:** PO041814  
**PO Date:** 11/22/18  
**Due Date:** 12/3/18  
**Purchase Order**  
**Revision:**  
**Revision Date:**  
**Ship-To Contact:** Phone:

**Ship To:** 1270 Aberdeen Street  
Hawkesbury  
ON  
K6A 1K7 Canada  
Phone: 613-632-5200

**Via:** Ground  
**Pymt Terms:** Net 30  
**Freight Terms:**  
**Special Comments:**

**E-MAILED**  
NOV 22 2018

## **Items**

| Line Item               | Job    | Part            | Supplier Part No | Item No | Description                                      | Status | Account | Due Date | Order Quantity | Received Quantity | Balance | Unit Price (CAD) | Extended Price |
|-------------------------|--------|-----------------|------------------|---------|--------------------------------------------------|--------|---------|----------|----------------|-------------------|---------|------------------|----------------|
| 1                       | 186862 | 12<br>C6X<br>SS |                  |         | Swivel Nut Fitting<br>As Per Dwg<br>D5110 Rev. B | Firmed | -       | 12/3/18  | 8 pcs          | 0 pcs             | 8 pcs   | \$177.75/pcs     | \$1,422.00     |
| Grand Total: \$1,422.00 |        |                 |                  |         |                                                  |        |         |          |                |                   |         |                  |                |

## **Order Notes**

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit [www.dartaerospace.com](http://www.dartaerospace.com) for further explanation.

### **Procurement Quality Clauses**

- A005 RIGHT OF ENTRY
- A007 FIRST ARTICLE INSPECTION (FAI) BY SELLER, (DOCUMENTATION MAINTAINED BY SUPPLIER)
- A012 CHEMICAL AND PHYSICAL TEST REPORTS
- A016 PERSONNEL QUALIFICATION
- A017 RAW MATERIAL IDENTIFICATION (AS APPLICABLE)
- A026 CERTIFICATION OF MATERIAL CONFORMANCE
- A041 QUALITY MANAGEMENT SYSTEM
- A042 DART NOTIFICATION BY SUPPLIER
- A043 RETENTION OF QUALITY DOCUMENT
- A048 COUNTERFEIT PARTS AVOIDANCE, DETECTION, MITIGATION AND DISPOSITION PROGRAM
- A049 SUPPLIER AWARENESS

Plex 11/22/18 1:02 PM dart.tsimiklis.chrisoula



## Packing list

215 Boul. Brunswick Pointe-Claire QC H9R 4R7

P: 514-697-8810 • 1-800-WAINBEE (924-6233) • F: 514-697-3070

Motion & Control • Industrial Filtration • Automation Solutions

12740400  
DART AEROSPACE LTD  
1270 ABERDEEN ST  
HAWKESBURY, ON  
K6A 1K7 CAN  
613-632-5246

|                                        |                     |
|----------------------------------------|---------------------|
| <b>CUSTOMER P/O NUMBER</b><br>PO041814 |                     |
| <b>RELEASE #</b>                       | PS00004479          |
| <b>PRINTED ON</b>                      | 12/06/2018 03:09 PM |

**SHIP TO** 12740400

DART AEROSPACE LTD HAWKESBURY  
1270 ABERDEEN ST  
HAWKESBURY, ON  
K6A 1K7 CAN

|                                                                                   |            |           |                                                                                   |     |                     |                      |                    |         |
|-----------------------------------------------------------------------------------|------------|-----------|-----------------------------------------------------------------------------------|-----|---------------------|----------------------|--------------------|---------|
| ORDER NUMBER                                                                      | ORDER DATE | SHIP DATE | WRITTEN BY                                                                        |     | CONTACT             |                      |                    |         |
| S000001789                                                                        | 12/1/2018  | 12/6/2018 | Hugues Roy                                                                        |     | Chrisoula Tsimiklis |                      |                    |         |
| CUSTOMER P/O NUMBER                                                               |            |           |  |     | SHIP VIA            |                      | TRACKING #         |         |
| PO041814                                                                          |            |           |                                                                                   |     | UPS STANDARD        |                      | 1ZF8121A2010343411 |         |
| PRODUCT / DESCRIPTION                                                             |            |           | QUANTITY OPEN                                                                     | U/M | QUANTITY SHIPPED    | QUANTITY BACKORDERED | PRICE / EXTENSION  |         |
| 12 C6X-SS / 12 C6X-SS                                                             |            |           | 8.00                                                                              | EA  | 8.00                |                      | 179.49             |         |
|  |            |           | Loc:                                                                              |     |                     |                      |                    |         |
| PARKER FITTING                                                                    |            |           |                                                                                   |     |                     |                      |                    | 1435.92 |

DAS  
38  
9-89

Wainbee's Standard Terms and Conditions Apply

Returned Goods Not Accepted Without Prior Authorization

Claims For Shortage Or Losses Are Not accepted 10 Days After Shipment

